ABSTRACT OF THE DISCLOSURE

A/D conversion section 103 converts the signal received by array antenna 101 and frequency-converted to a digital signal by frequency conversion section 102. Correlation detection section 105 uses the chip rate as a cycle frequency and calculates a cyclic correlation matrix of spread spectrum signals stored in data storage section 104. Cycle frequency detection section 106 detects the cycle frequency of an interference signal output from A/D conversion section 103. Correlation detection section 107 uses the detection result of cycle frequency detection section 106 as a cycle frequency and calculates a cyclic correlation matrix of the signal, which becomes an interference signal, using the signal output from A/D conversion section 103. Direction of arrival estimation section 108, using the cyclic correlation matrices calculated by correlation detection section 105 and correlation detection section 107, calculates their respective eigenvalues and eigenvectors and estimates the directions of arrival of a spread spectrum signal and a signal, which becomes an interference signal. This makes it possible to estimate the direction of arrival of a spread spectrum signal by selecting the spread spectrum signal from a reception signal made up of the spread spectrum signal and a signal based on a modulation system different from that of the spread spectrum signal.